

**Amendments to the Claims:**

The listing of claims will replace all prior versions, and listings, of claims in the application.

**Listings of Claims:**

Please Amend the remaining claims as indicated below:

1. (Currently Amended) A method for fitting golf equipment, comprising:

determining swing information related to a golfer's current swing using a golf club comprising a shaft and a club head, and using a golf ball;

receiving swing data over a wireless communication link;

combining the determined swing information with the swing data received over the wireless communication link; and

using the received swing data and the determined swing information to derive swing parameters for use in replacing one of the shaft and the club head, while in fitting the golfer with golf equipment, to optimize ~~including optimizing~~ a launch angle, velocity and spin rate relative to each other based on the derived swing parameters, wherein optimizing the launch angle, velocity, and spin rate comprises matching the velocity with a combination of launch angle and spin rate ~~are optimized so as to allow the golfer~~ to achieve maximum distance and control when hitting a golf ball.

2. (Original) The method of claim 1, further comprising deriving a load time for the golfer's swing based on the received swing data.

3. (Original) The method of claim 1, further comprising deriving a load pattern for the golfer's swing based on the received swing data.

4. (Original) The method of claim 1, further comprising deriving ramp potential for the golfer's swing based on the received swing data.

5. (Original) The method of claim 1, further comprising deriving a load time, a load pattern, and a ramp potential based on the received swing data and deriving a shaft flex based on the derived load time, load pattern, and ramp potential.

6. (Original) The method of claim 1, further comprising displaying information related to the received swing data.

7. (Original) The method of claim 6, wherein the information is displayed in a graphical format.

8. (Previously Presented) The method of claim 1, further comprising deriving a peak deflection associated with the golfer's swing based on the received swing data.

9-25. (Canceled).

26. (Previously Presented) A golf equipment fitting system, comprising:

a launch data collection system, comprising a high speed color camera system configured to obtain information related to the launch of a golf ball based

on color markings on the golf ball, the color markings comprising at least two colors;

a swing data collection system, comprising:

a strain gauge configured to sense shaft deflection;

a wireless transmitter coupled to the strain gauge, the wireless transmitter configured to receive data from the strain gauge and to transmit the receive data; and

a processor system configured to the launch angle, spin rate, and velocity of a golf ball for a particular golfer based on the received launch information and strain gauge data, wherein the launch angle, velocity, and spin rate are optimized so as to allow the golfer to achieve maximum distance and control when hitting a golf ball.

27. (Currently Amended) The golf equipment fitting system of claim 26, wherein the ~~shaft module~~ swing data collection system is further configured to derive a load time for the golfer's swing based on the received swing data.

28. (Currently Amended) The golf equipment fitting system of claim 26, wherein the ~~shaft module~~ swing data collection system is further configured to derive a load pattern for the golfer's swing based on the received swing data.

29. (Currently Amended) The golf equipment fitting system of claim 26, wherein the ~~shaft module~~ swing data collection system is further configured to derive ramp potential for the golfer's swing based on the received swing data.

30. (Currently Amended) The golf equipment fitting system of claim 26, wherein the ~~shaft module~~ swing data collection system is further configured to derive a load time, a load pattern, and a ramp potential based on the received swing data and to derive a shaft flex based on the derived load time, load pattern, and shaft potential.

31. (Currently Amended) The golf equipment fitting system of claim 26, wherein the golf fitting system further comprises a display, and wherein the ~~shaft module~~ swing data collection system is configured to display information related to the received data on the display.

32. (Currently Amended) The golf equipment fitting system of claim 31, wherein the ~~shaft module~~ swing data collection system is configured to display the information in a graphical format.

33. (Original) The golf equipment fitting system of claim 26, wherein the strain gauge is configured to sense the lead or lag deflection of the shaft.

34. (Previously Presented) The golf equipment fitting system of claim 26, wherein the strain gauge is configured to sense the toe up or toe down deflection of the shaft.

35. (Original) The golf equipment fitting system of claim 26, wherein the strain gauge is configured to sense a peak deflection of the shaft.

36. (Original) The golf equipment fitting system of claim 26, wherein the swing data collection system further comprises a strap configured to secure the wireless transmitter.

37. (Original) The golf equipment fitting system of claim 26, wherein the strain gauge and wireless transmitter comprises a single device.

38. (Original) The golf equipment fitting system of claim 26, wherein the swing data collection system further comprises a plurality of strain gauges each of the plurality of strain gauges configured to sense shaft deflection.

39. (Original) The golf equipment fitting system of claim 36, wherein the wireless transmitter is coupled to each of the plurality of strain gauges, and wherein the wireless transmitter is configured to receive data from each of the plurality of strain gauges and to transmit the received data to the shaft fitting system.

40. (Previously Presented) The golf equipment fitting system of claim 38, wherein the swing data collection system further comprises a plurality of wireless transmitters, each of the plurality of wireless transmitters coupled to one of the plurality of strain gauges, and wherein each of the plurality of wireless transmitters is configured to receive data from the associated strain gauge and transmit it to the shaft fitting system.

41. (Previously Presented) The method of claim 1, wherein the swing information determined includes information related to what equipment the golfer uses.

42. (Previously Presented) The method of claim 1, wherein the swing information determined includes information related to the golfer's strengths and weaknesses.

43. (Previously Presented) The method of claim 1, wherein the swing information determined includes information related to the courses and conditions the golfer normally encounters.

44. (Previously Presented) The method of claim 1, wherein the swing information determined includes information related to the level of competition the golfer normally encounters.

45. (Previously Presented) The method of claim 1, wherein the swing information determined includes information related to the golfer's swing technique.

46. (Previously Presented) The method of claim 45, wherein determining information related to the golfer's swing technique comprises video taping the golfer's swing.

47. (Previously Presented) The method of claim 45, further comprising identifying swing flaws related to the golfer's swing technique and correcting the

swing flaws prior to evaluating the golfer's current clubs or receiving the swing data.

48. (Previously Presented) The method of claim 1, wherein combining the swing information and the swing data comprises generating a baseline performance matrix that can be used to determine if the golfer's swing technique needs modification.

49. (Previously Presented) The method of claim 48, further comprising providing swing instruction when it is determined that the golfer's swing technique needs modification.

50. (Previously Presented) The method of claim 48, further comprising receiving launch information related to the golfer's swing and combining the swing information and swing data with the launch information in order to select an optimal shaft for the golfer.

51. (Previously Presented) The method of claim 48, further comprising receiving launch information related to the golfer's swing and combining the swing information and swing data with the launch information in order to select an optimal club head for the golfer.

52. (Previously Presented) The method of claim 48, further comprising receiving launch information related to the golfer's swing and combining the swing information and swing data with the launch information in order to select an optimal ball for the golfer.

53. (Previously Presented) The golf equipment fitting system of claim 26, wherein the information obtained by the launch data collection system includes information related to the initial velocity of a golf ball as it is launched.

54. (Previously Presented) The golf equipment fitting system of claim 26, wherein the information obtained by the launch data collection system includes information related to the spin rate of a golf ball as it is launched.

55. (Previously Presented) The golf equipment fitting system of claim 26, wherein the information obtained by the launch data collection system includes information related to the launch angle of a golf ball as it is launched.

56. (Previously Presented) The golf equipment fitting system of claim 54, wherein the spin rate information obtained by the launch data collection system includes information related to the backspin of the golf ball.

57. (Previously Presented) The golf equipment fitting system of claim 54, wherein the spin rate information obtained by the launch data collection system includes information related to the sidespin of the golf ball.

58. (Previously Presented) The golf equipment fitting system of claim 54, wherein the spin rate information obtained by the launch data collection system includes information related to the rifle spin of the golf ball.

59. (New) The method of claim 1, further comprising selecting a maximum ceiling height for golf ball trajectory, and wherein matching the velocity with a combination of launch angle and spin rate comprises matching



velocity with a combination of launch angle and spin rate determined based at least in part on the maximum ceiling height.